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WESTERN DIGITAL TECHNOLOGIES, INC.			CHOWDHURY, SUMAIYA A	
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20511 LAKE FOREST DR.			PAPER NUMBER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/920,583	Applicant(s) KAPNER ET AL.	
	Examiner Sumaiya A. Chowdhury	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26,28-39 and 41-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26,28-39 and 41-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments, see arguments, filed 1/25/06, with respect to Office Action of 9/27/05 have been fully considered and are persuasive. The Office Action of 9/27/05 has been withdrawn.

(a) Applicant argues "Kikinis provisional application, quite simply, does not describe the limitations of Applicants' independent claim 45" in paragraph 7, page 11, of the amendment filed 1/25/06.

In response, the Examiner agrees and has therefore re-examined the claim and issued another Non-final rejection.

(b) Applicant argues "The LaRocca patent teaches away ...for the user" in paragraph 2, page 13, of the amendment filed 1/25/06.

In response, LaRocca was brought in to teach **only** if the selected program guide entry is for a non-subscribed channel, selecting a bundle of channels..., and transmitting a subscription request....system. Davis teaches a client terminal.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-6, 8-13, 15-18, 21-26, 28-32, 34-39, 41-45, and 47-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (5822123) in view of LaRocca (6314572).

As for claim 1, Davis discloses a client terminal (Fig. 1) connectable to a video distribution system (col. 9, lines 11-20) and a display device (27 – Fig. 1), the video distribution system provides program guide information to create a program guide that includes program guide entries for subscribed channels and non-subscribed channels, the client terminal comprising:

a video distribution system interface (11 – Fig. 1) to receive the program guide information - col. 9, lines 8-20;

a display interface (23 or 26 – Fig. 1 and 27 – Fig. 1) to display the program guide on the display device - col. 11, lines 9-16, col. 9, lines 14-21;

a user interface (29 – Fig. 1) to receive user input - col. 12, lines 4-10; and

a terminal controller (16 – Fig. 1) responsive to a subscription control program for:

- a. in response to user input, selecting a program guide entry from the program guide (col. 20, lines 9-11, lines 25-34, lines 49-54);

However, Davis fails to disclose wherein

- b. if the selected program guide entry is for a non-subscribed channel
 - i. selecting a bundle of channels based upon a subscription matrix

for the user, the selected program guide entry, and available bundles of channels for subscription.

- ii. transmitting a subscription request for the selected bundle of channels to the video distribution system

In an analogous art, LaRocca discloses:

- b. if the selected program guide entry is for a non-subscribed channel (col. 11, lines 25-30, lines 35-39, col. 10, lines 7-11),

- i. selecting a bundle of channels based upon a subscription matrix (col. 5, lines 29-41) for the user, the selected program guide entry, and available bundles of channels for subscription (The subsystems 142 – Fig. 1 and 144 – Fig. 1 maintain databases of specific customer subscription information (subscription matrix) which is used to facilitate dependent subscriptions - col. 5, lines 29-41. Therefore, if the user selects M subscriptions out of N services, the subscriber is provided the remaining services for free or at a discounted rate. It tracks the subscriptions of each subscriber and when a certain number is obtained in a category, the remaining services are available for free or for a discounted fee – col. 13, lines 16-28. e.g. User selects children's programming (selected program guide entry). The remaining children's programming services (available bundle of channels for subscription) are made available for free or for a discounted fee. The remaining children's programming services are determined from the specific

customer subscription information (subscription matrix). When the subscriber subscribes to dependent subscriptions, the system allows the subscriptions to be bundled into fixed packages containing a plurality of services for the advantage of providing programs to the user for free or at a discounted rate - col. 13, lines 16-27); and

- ii. transmitting a subscription request for the selected bundle of channels to the video distribution system (The subscription information screen allows user to sign up for service. The subscription information screen may inform the user that service requested is a dependent service, implying that user may sign up for a bundle of channels - col. 11, lines 35-67).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Davis's system to include :

- b. if the selected program guide entry is for a non-subscribed channel
 - i. selecting a bundle of channels based upon a subscription matrix for the user, the selected program guide entry, and available bundles of channels for subscription.
 - ii. transmitting a subscription request for the selected bundle of channels to the video distribution system, as taught by LaRocca, for the advantage of providing programs for free or at a discounted rate – col. 13, lines 16-24.

Claim 26 contain the limitations of claims 1 and 39 and is analyzed as previously discussed with respect to that claim.

As for claims 3, 15, 28, and 41, Davis and LaRocca disclose wherein the video distribution system after receipt of the subscription request for the selected bundle of channels verifies a user's credit with a billing system to determine whether the user's credit is approved or disapproved for the selected bundle of channels, the terminal controller or video distribution controller responsive to the subscription control program/further comprising code segments or steps for :

In particular, LaRocca discloses:

- a. receiving the approval or disapproval from the video distribution system (col. 12, lines 1-14); and
- b. if the user's credit is approved,
 - i. updating the subscription matrix (subscription database) to reflect that the client terminal is now subscribed to the selected bundle of channels (col. 12, lines 9-22); and
 - ii. authorizing access to the selected bundle of channels (col. 12, lines 21-25).

As for claims 4, 16, and 29, Davis and LaRocca disclose wherein the subscription matrix is stored both locally at the client terminal and remotely at the video

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distribution system. In particular, Davis discloses wherein initially the microcontroller stores the subscription ordering information (subscription matrix) in a location in memory in the settop box. The subscription information can then be transmitted to the cable operator which is located remotely at the video distribution system – col. 20, lines 49-54.

As for claims 5, 17, 30, and 43, Davis fails to disclose wherein the subscription matrix includes a client terminal I.D. designating the associated client terminal, channels subscribed to by the client terminal, and available channels not subscribed to by the client terminal.

In an analogous art, LaRocca discloses wherein the program identification codes for the channels subscribed to by the subscriber and terminal I.D are stored in the subscription database (subscription matrix) such that the subscriber can access their personal SOD service at any time– col. 13, lines 9-12. The subscription database contains customer specific information storing which type of service the subscriber is/not subscribed to enable the system to accurately control system access, and subscriber billing, and to facilitate dependent subscriptions. – col. 5, lines 29-40.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Davis's system to include wherein the subscription matrix includes a client terminal I.D. designating the associated client terminal, channels subscribed to by the client terminal, and available channels not subscribed to by the client terminal, as taught by LaRocca, for the advantage of allowing the subscriber to

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access their personal SOD service at any time and for enabling the system to accurately control system access, and subscriber and billing, and to facilitate dependent subscriptions.

As for claims 6, 18, 31, and 44, Davis and LaRocca disclose wherein the selected bundle of channels is the most cost effective bundle of channels having a subscription cost that is less than the subscription cost of individually subscribing to the non-subscribed channel. In particular, LaRocca discloses wherein the subscriber subscribes to dependent subscriptions, the system allows the subscriptions to be bundled into fixed packages wherein several of the services is provided for free or at a discounted rate - col. 13, lines 16-27

As for claims 8, 21, and 34, Davis and LaRocca disclose wherein the client terminal is coupled to the video distribution system by a link that provides a persistent connection. In particular, Davis discloses that the client terminal receives data from the video distribution system via cablecast which is a persistent connection - cablecast, cable line – col. 9, lines 12-16, lines 20-22.

As for claims 9, 22, and 35, Davis fails to disclose wherein a channel includes a tier of channels.

In an analogous art, LaRocca discloses wherein the menu (500 – Fig. 5) includes a category for each listed channel (502 – Fig. 5) - col. 10, lines 29-45.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Davis's system to include wherein a channel includes a tier of channels, as taught by LaRocca, for the advantage of grouping channels into their respective categories to provide the user the ease of finding a desired channel.

As for claims 10, 23, and 36, Davis and LaRocca discloses wherein a channel includes a computer network channel. In particular, Davis discloses wherein 64 – Fig. 6 corresponds to interactive services which require a computer network channel. e.g. home shopping, banking, or telephone use - col. 17, lines 39-44.

As for claims 11, 24, and 37, Davis and LaRocca disclose the client terminal comprising selecting only a program of the program guide entry of a non-subscribed channel for subscription in selecting the bundle of channels. In particular, LaRocca discloses wherein the client terminal selects a program of the program guide entry of a non-subscribed channel for subscription in selecting the bundle of channels. e.g. Referring to col. 12 lines 38-65, a user is presented with a sports bundle. The user may only be interested in men's professional basketball and is provided the option of selecting that particular channel – col. 12, lines 58-67.

As for claims 12, 25, and 38, Davis fails to disclose wherein the client terminal wherein the video distribution system is a cable head end.

In an analogous art, LaRocca discloses wherein the video distribution system is a cable head end - col. 4, lines 63-67.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Davis's system to include wherein the video distribution system is a cable head end, as taught by LaRocca, for the advantage of providing a secure bi-directional flow of data between the client terminal and cable headend.

Claim 13 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim. Claim 13 additionally calls for the following which Davis discloses:

a computer program (application software) embodied in a computer readable storage medium (SRAM, EEPROM 20 – Fig. 1) for use in a client terminal (Fig. 1) connectable to a video distribution system (col. 9, lines 11-20) and a display device (27 – Fig. 1), the video distribution system provides program guide information to create a program guide that includes program guide entries for subscribed channels and non-subscribed channels, the computer program comprising code segments (software programming) to perform the method discussed above in claim 1. (The video distribution system provides program schedule information for **all (subscribed and non-subscribed)** television programs available in the operator's geographical market – col. 9, lines 8-20. The EEPROM is connected to the video distribution system through

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components 12-16 – Fig. 1, and is connected to the display device through 16, 23, 25A – Fig. 1. col. 9, lines 58-64).

Claim 39 contains the limitations of claim 13 and is analyzed as previously discussed with respect to that claim. Claim 39 additionally calls for the following which LaRocca discloses:

the video distribution system comprising:

a video distribution system controller (142 – Fig. 1); and

a subscription matrix storage (154 – Fig. 1, col. 5, lines 29-41) to store a subscription matrix for the client terminal;

wherein, in response to user input selecting a program guide entry from the program guide for a non-subscribed channel received from the client terminal, the video distribution system controller to:

recommend at least one bundle of channels for the client terminal based upon the subscription matrix for the client terminal, the selected program guide entry for the non-subscribed channel, and available bundles of channels for subscription (col. 5, lines 29-41, col. 13, lines 16-28, col. 11, lines 25-67).

accept user input from the client terminal to select a bundle of channels for subscription by the user (col. 6, lines 2-8); and

transmit the recommended bundle of channels for the user to the client terminal (col. 6, lines 2-8).

As for claim 42, Davis fails to disclose wherein the video distribution system controller updates a subscription matrix located at the client terminal such that the client terminal authorizes access to the selected bundle of channels.

In an analogous art, LaRocca discloses wherein after the network manager (video distribution system controller) updates the subscription database (subscription matrix), the system provides the new subscriber of the service to utilize the newly subscribed service, hence the subscription matrix at the client terminal is updated authorizing access to the newly subscribed service and updating the system's billing system— col. 12, lines 10-25

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Davis's system to include wherein the video distribution system controller updates a subscription matrix located at the client terminal such that the client terminal authorizes access to the selected bundle of channels, as taught by LaRocca, for the advantage of updating authorized access to the newly subscribed service and updating the system's billing system.

As for claim 45, Davis discloses a client terminal (Fig. 1) connectable to a video distribution system (col. 9, lines 11-20) and a display device (27 – Fig. 1), the video distribution system provides program information to create a program guide that includes program guide entries of channels, the client terminal comprising:

a video distribution system interface (11 – Fig. 1) to receive the program information - col. 9, lines 8-20;

a display interface (23 or 26 – Fig. 1 and 27 – Fig. 1) to display channels on the display device - col. 11, lines 9-16, col. 9, lines 14-21;

a user interface (29 – Fig. 1) to receive user input - col. 12, lines 4-10; and

a terminal controller (16 – Fig. 1) responsive to a subscription control program for:

a. in response to user input, selecting an entry from the various channels listed (col. 20, lines 9-11, lines 25-34, lines 49-54);

b. transmitting a subscription request for the selected service to the video distribution system – col. 20, lines 25-35.

However, Davis fails to disclose wherein the video distribution system provides promotion information that advertises a bundle of channels which is displayed to the user, from which the user selects a promotion display for a bundle of channels which is subsequently relayed to the video distribution system.

In an analogous art, LaRocca discloses:

the video distribution system (122 – Fig. 1) provides promotion information that advertises a bundle of channels (Fig. 4) which is displayed to the user – (col. 9, lines 30-55),

from which the user selects a promotion display for a bundle of channels which is subsequently relayed to the video distribution system – (col. 9, lines 42-61).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Davis' invention to include the video distribution system provides promotion information that advertises a bundle of channels which is displayed

to the user, from which the user selects a promotion display for a bundle of channels which is subsequently relayed to the video distribution system, as taught by LaRocca, for the advantage of determining if the user has a subscription fee for the selected service.

Claim 32 contains the limitations of claim 45 and is analyzed as previously discussed with respect to that claim.

As for claim 47, Davis and LaRocca disclose the claimed limitations. In particular, LaRocca discloses:

the video distribution system after receipt of the subscription request for the selected bundle of channels verifies a user's credit with a billing system to determine whether the user's credit is approved or disapproved for the selected bundle of channels, the terminal controller responsive to the subscription control program for:

- a. receiving the approval or disapproval from the video distribution system (col. 12, lines 1-14); and
- b. if the user's credit is approved,
 - i. updating a subscription matrix (subscription database) to reflect that the client terminal is now subscribed to the selected bundle of channels (col. 12, lines 9-22); and
 - ii. authorizing access to the selected bundle of channels (col. 12, lines 21-25).

As for claim 48, Davis and LaRocca disclose the claimed limitations. In particular, Davis discloses wherein initially the microcontroller stores the subscription ordering information in a location in memory in the settop box to update the local subscription matrix. The subscription information (subscription matrix) can then be transmitted to the cable operator which is located remotely at the video distribution system for billing purposes— col. 20, lines 49-54.

As for claim 49, Davis and LaRocca disclose the claimed limitations. In particular, LaRocca discloses wherein the program identification codes for the channels subscribed to by the subscriber and terminal I.D are stored in the subscription database (subscription matrix) such that the subscriber can access their personal SOD service at any time and without further payment – col. 13, lines 9-12. The subscription database contains customer specific information storing which type of service the subscriber is/not subscribed to – col. 5, lines 29-40.

As for claim 50, Davis and LaRocca disclose the claimed limitations. In particular, Davis discloses wherein the client terminal is coupled to the video distribution system by a link that provides a persistent connection (wires, cables, col. 9, lines 8-23).

As for claim 51, Davis and LaRocca disclose the claimed limitations. In particular, LaRocca discloses wherein the menu (500 – Fig. 5) includes a category for each listed channel (502 – Fig. 5) for categorizing channels- col. 10, lines 29-45.

As for claim 52, Davis and LaRocca disclose the claimed limitations. In particular, Davis discloses wherein 64 – Fig. 6 corresponds to interactive services which require a computer network channel. e.g. home shopping, banking, or telephone use - col. 17, lines 39-44.

4. Claims 2, 14, 7, 20, 33, 19, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of LaRocca as applied to claims 1, 13, 1, 13, 26, 13, and 45 respectively, above, and further in view of Kikinis.

Claims 2 and 14, contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim. Claims 2 and 14 additionally call for the following which LaRocca discloses:

Selecting a bundle of channels further comprises code segments and steps for:
b. accepting user input to select a bundle of channels for subscription by the user - col. 11, lines 35-67, col. 12, lines 58-60, col. 13, lines 30-35; and

However, Davis and LaRocca fail to disclose wherein :

a. recommending at least one bundle of channels for subscription by the user ;

In an analogous art, Kikinis discloses wherein packages (bundles) of TV programming are recommended to the user for subscription based on user's past selection of programming to provide the user with recommendations of packages that the user is likely to select – (paragraph [0031]-[0033], [0009] in published application,

and paragraph 4 (Based on the customer's history...) on page 3 of the provisional application).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Davis's and LaRocca's system to include recommending at least one bundle of channels for subscription by the user, as taught by Kikinis, for the advantage of providing to the user subscription recommendations which the user is likely to select.

As for claims 7, 20, and 33, LaRocca and Davis fail to disclose wherein client terminal further comprising the step/preference engine/code segments, wherein the preference engine/code segments selects program guide entries for non-subscribed channels for display in the program guide based upon a user's viewing patterns.

In an analogous art, Kikinis discloses wherein the client terminal recommends packages including programming based on customer's use-tracking program (step/preference engine/ code segments) which tracks customer's attempt to access unavailable programming (non-subscribed channels) – (paragraph [0031] - [0033] in published application and paragraph 3 & 4 (Then in step 402 attempts by the customer...) on page 3 in provisional application).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify LaRocca and Davis's system to include wherein client terminal further comprising a preference engine, wherein the preference engine/code segments selects program guide entries for non-subscribed channels for display in the

program guide based upon a user's viewing patterns, as taught by Kikinis, for the advantage of providing recommendations of channels which the user is likely to select based on user's past selections.

As for claim 19, Davis and LaRocca disclose wherein the computer program further comprises code segments/steps for:

c. transmitting a subscription request for the bundle of channels to the video distribution system as discussed above.

However, they both fail to disclose:

- a. displaying a promotion display for a bundle of channels.
- b. in response to user input, selecting the promotion display; and

In an analogous art, Kikinis discloses:

a. displaying a promotion display for a bundle of channels – (paragraph [0021], [0031] in published application and paragraph 3 & 4 (In step 203, ...exit via arrow 221) on page 2 of provisional application.)

b. in response to user input, selecting the promotion display – (paragraph [0022] in published application and paragraph 4 (select one package) of provisional application); and

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify LaRocca and Davis's system to include displaying a promotion display for a bundle of channels and in response to user input, selecting the promotion display, as taught by Kikinis, for the advantage providing the user with

programming which the user is most likely to select in contrast to other available packages.

As for claim 46, Davis and LaRocca fail to disclose wherein the client terminal further comprises a preference engine, wherein the preference engine selects a promotion display for a bundle of channels for display on the display device based upon a user's viewing patterns.

In an analogous art, Kikinis discloses wherein a promotion display for a bundle of channels is displayed based upon a user's viewing patterns - (paragraph [0021], [0031] in published application and paragraph 3 & 4 (In step 203, ...exit via arrow 221) on page 2 of provisional application.) for the advantage of providing the user with programming which the user is most likely to select in contrast to other available packages.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Davis and LaRocca's invention to include a promotion display for a bundle of channels is displayed based upon a user's viewing patterns, as taught by Kikinis, for the advantage of providing the user with programming which the user is most likely to select in contrast to other available packages.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumaiya A. Chowdhury whose telephone number is (571) 272-8567. The examiner can normally be reached on Mon-Fri, 9-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (571) 272-7292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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